

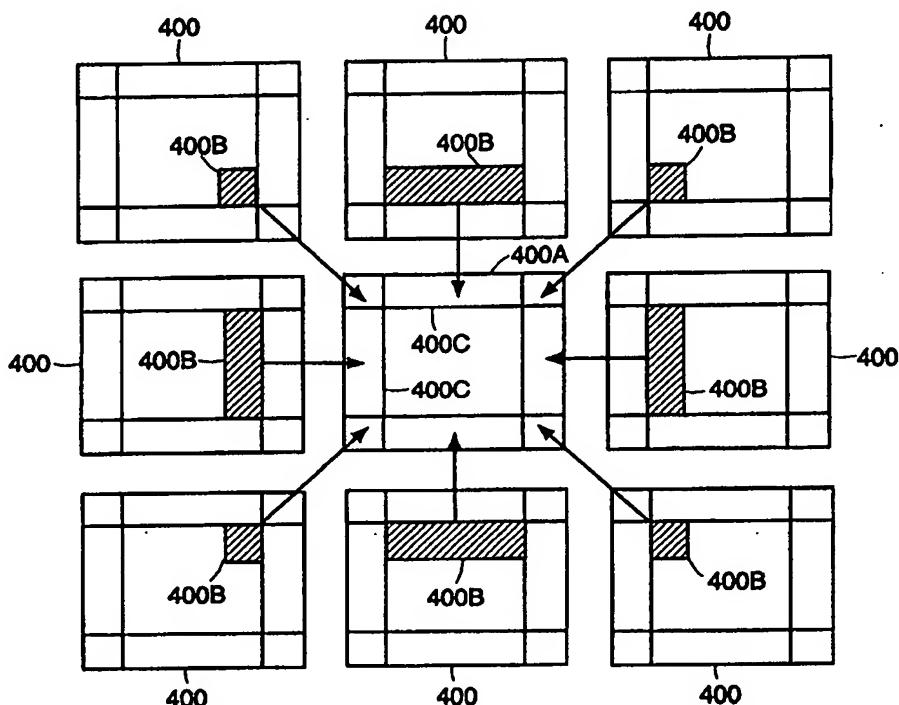


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(74) Agents:	SMITH, James, M. et al.; Hamilton, Brook, Smith & Reynolds, P.C., Two Militia Drive, Lexington, MA 02421 (US).		With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.	
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(54) Title: METHOD AND APPARATUS FOR ADVANCED TELEVISION SIGNAL ENCODING AND DECODING

(57) Abstract

The specification discloses a method and apparatus for encoding and decoding advanced television signals using standard MPEG-2 compression engines while maintaining the compression efficiency of such compression engines. The architecture provides parallel processing using standard MPEG-2 compression engines in an overlapping arrangement that does not sacrifice compression performance. A video encoder includes plural regional processors for encoding an input stream of video images. Each video image is divided into regions that have overlapping portions, with each processor encoding a particular region of a current video image in the stream. The regional processors each store a reference frame in a local memory based on a prior video image in the stream for use in the motion compensation of the encoding process. A



reference frame processor coupled to the plural local memories updates each reference frame with information from reference frames stored in adjacent local memories. The encoded video images are made up of macroblocks and each regional processor includes means for removing certain macroblocks from the encoded video images that correspond to the overlap portions and concatenating the resulting

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INTERNATIONAL SEARCH REPORT

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PCT/US 99/01410

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 H04N7/26

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X	US 5 701 160 A (KIMURA JUNICHI ET AL) 23 December 1997 (1997-12-23) column 7, line 23 - line 40	21,25
A	column 8, line 28 - line 50 column 11, line 18 - line 30 column 12, line 30 - line 53 column 36, line 37 -column 37, line 54 ---	1-3,8,9, 13,15, 16,19,20

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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Information on patent family members

International Application No

PCT/US 99/01410

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